We Claim:-

1. A friction vibration damper for damping the vibrations of a vibrating component comprising a body, a chamber and a plurality of elements, the body defines the chamber which is partially filled with the plurality of elements, the friction vibration damper, in use, disposed on or in the vibrating component characterised in that the friction vibration damper is configured to substantially prevent the elements operationally moving in a convection-like flow pattern.

2. A friction vibration damper for a vibrating component as claimed in claim 1 characterised in that the plurality of elements comprise substantially spherical elements .

3. A friction vibration damper for a vibrating component as claimed in claim 1 characterised in that the plurality of elements comprises substantially spherical elements of at least two discrete sizes.

4. A friction vibration damper for a vibrating component as claimed in claim 2 characterised in that the elements are substantially spherical each with a diameter in the range 0,1 to 5,0 millimetres.

5. A friction vibration damper for a vibrating component as claimed in claim 1 characterised in that the plurality of elements comprise elements having a high aspect ratio.

6. A friction vibration damper for a vibrating component as claimed in claim 1 characterised in that the plurality of elements comprise elongate elements.

7. A friction vibration damper for a vibrating component as claimed in claim 1 characterised in that the plurality of elements comprise elements having a low aspect ratio.

8. A friction vibration damper for a vibrating component as claimed in claim 1 characterised in that the plurality of elements comprise disc shaped elements.

9. A friction vibration damper for a vibrating component as claimed in claim 1 characterised in that the body comprises a baffle, the baffle is disposed within the chamber to

substantially prevent the elements operationally moving in a convection-like flow pattern.

10. A friction vibration damper for a vibrating component as claimed in claim 9 characterised in that the baffle extends across the chamber.

11. A friction vibration damper for a vibrating component as claimed in claim 9 characterised in that the baffle comprises a mesh structure.

12. A friction vibration damper for a vibrating component as claimed in claim 9 characterised in that the baffle comprises a "wire wool" matrix.

13. A friction vibration damper for a vibrating component as claimed in claim 1 characterised in that the body comprises the chamber having a high aspect ratio.

14. A friction vibration damper for a vibrating component as claimed in claim 1 characterised in that the body comprises the chamber having a low aspect ratio.

15. A friction vibration damper for a vibrating component as claimed in claim 1 characterised in that the friction vibration damper comprises a pedestal, the damper is mounted on a pedestal, the pedestal attached to the vibrating component.

16. A friction vibration damper for a vibrating component as claimed in claim 1 characterised in that the body defines two or more chambers.

17. A friction vibration damper for a vibrating component as claimed in claim 16 characterised in that each of the chambers is partially filled with a plurality of elements of substantially the same size, each plurality of elements in each chamber being of a different discrete size.

18. A friction vibration damper for a vibrating component as claimed in claim 1 characterised in that the elements are metallic.

19. A friction vibration damper for a vibrating component as claimed in claim 1 characterised in that the elements are ceramic.

20. A friction vibration damper for a vibrating component as claimed in claim 1 characterised in that the chamber is filled with elements to between 90 and 100 per cent by volume.

21. A friction vibration damper for a vibrating component as claimed in claim 1 characterised in that the chamber is filled with elements to 95 per cent by volume.

22. A friction vibration damper for a vibrating component as claimed in claim 1 characterised in that each of the chambers is filled with elements to 95 per cent by volume.

23. A friction vibration damper for a vibrating component as claimed in claim 1 characterised in that each of the chambers is filled with elements to a different percentage by volume of each chamber.

24. A friction vibration damper for a vibrating component as claimed in claim 1 characterised in that the body of the friction vibration damper is substantially cylindrical.

25. A friction vibration damper for a vibrating component as claimed in claim 1 characterised in that the body of the friction vibration damper is substantially parallelepiped.

26. A friction vibration damper for a vibrating component as claimed in claim 1 characterised in that the vibrating component is a workpiece.

27. A friction vibration damper for a vibrating component as claimed in claim 26 characterised in that the workpiece is subject to a machining operation.

28. A friction vibration damper for a vibrating component as claimed in claim 26 characterised in that the vibrating component is a machine tool.

29. A friction vibration damper for a vibrating component as claimed in claim 1 characterised in that the vibrating component is a machine.

30. A friction vibration damper for a vibrating component as claimed in claim 1 characterised in that the friction vibration damper is disposed to the vibrating component by temporary means.

31. A friction vibration damper for a vibrating component as claimed in claim 1 characterised in that the component vibrates in the frequency range up to 10 Hertz.

32. A method of damping the vibrations of a vibrating component comprising the steps of, locating the position of the greatest amplitude of vibration on an engine component and disposing a vibration damping device on the component at the position of the greatest amplitude of vibration.